

PATHWAYS

VOL. VI

APRIL—1984

No. 2

PLAYING WITH WORDS

by Meera Govil

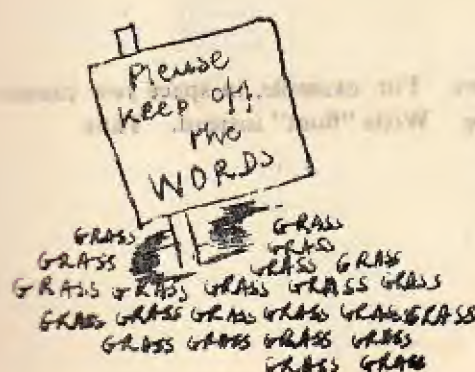
(Meera Govil, formerly one of the coordinators of the Springdales Teachers Centre, now works for TARGET, the children's magazine. She requests readers to send her any original work by children that arises out of these or similar "playing with words". TARGET is always on the lookout for interesting contributions by children for their OOPS! page. Good black and white drawings are also welcome. The address is 40-F Connaught Place, New Delhi-110001.)

You can play with marbles,
You can play with a ball,
You can play with dice,
You can play with words

words . . . words

Warnings

Words are not dangerous. But what if they were?



Can you think of any more ?

Knock—Knock

Knock—Knock.

Who's there ?

Doctor.

Doctor who ?

Yes—that's me, Doctor Who

Knock—Knock.

Who's there ?

Toodle.

Toodle who ?

Toodle—oo ? But you've only just arrived.

Knock-Knock are word games. Write down all the ones you know, then make up some more.

Puns

A pun is a word that had two meanings. Here are some examples.

- * What is the more important part of a house ?

The mane part (mane, main).

- * Why should you go to the beach when you're hungry ?

Because of the sand which is there (sand which is sandwiches).

Do you know any other puns ? Try making some up. Here are some words to help you : bore, boar; a rest arrest; knows, nose; fair, fare.

Word Bans

What if one day the government abolished the words "four", "for", and "fore" and said that each of these words should be replaced by "five" ? What would people say ?



What for ? becomes What five ?

Forget becomes fiveget.

Forefinger becomes fivefinger.

Knife and.....

Think of some more. Invent some other changes. For example, in space you cannot sit stand or lie—you float. Ban the words : sit, stand and lie. Write "float" instead. Thus

Let sleeping dogs float.

Do you underfloat ?

Float up when I come into the room.

Word Chains

You could take a word like 'bird' and then make up a list of words that come into your head. Here is a sample.

feathery, soft,
up, graceful,
beady eyes, swift,
prey, fast,
soaring, pecking,
in the air, sparrows,
migrating, skimming.

You can then try choosing words more carefully and putting them in some sort of order.

The Bird

swift, graceful,
fast, in the air,
flying high, migrating,
up, soaring.
by Salim (age 12)

Word Shapes

You can start off very simply by taking one word and fitting it into a shape. This is shown on the left.

You can then try making a list of words, putting them in order and writing them in a shape like the one on the right.

BOOT	
BOOT	
BOOT	
BOOT	BOOT
BOOT	BOOT

A
b
a
constrictor
a
gliding
a
quietly zig-zag
the through zag-
rough grass

by Lalit (age 11)



Some of the words we use imitate a soup. You could go through some comics and make a list of all the words like these.



Or you can just make funny little rhymes like the one below. Only the second and fourth line need rhyme.

A thousand hairy savages
Sitting down to lunch
Gobble gobble glup glup
Munch munch munch munch.

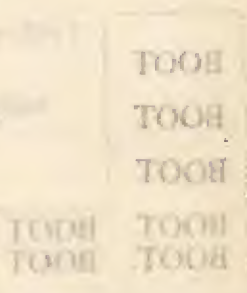
—Spike Milligan

Found Words

You can try playing around with words as you find them—in textbooks, or notice boards, or advertisements—in fact, almost anywhere. You could even use words or phrases which people around you (like relatives, teachers and friends) always use. You can experiment with line lengths to make them sound funny or unusual. For example: this is a poem of someone talking. Guess who?

All right, now
now again,
Will you listen
to me . . .
I'm very tired of
this.
You have to face the front or . . .
I'll give you
extra work.
Listen, let's
get this
straight

Now, listen carefully.
Now, don't forget.
Now.
I want this done
and done well.
I don't care if it's
done in
pen or pencil.
So long as
it's written. Now
get busy
now.



Take an event and write down the words which describe its sound, e.g. an accident.

CRASH CRUNCH WHAM BASH

Animal sounds are also quite good ones to use. Here is a mouse:
squeak, squeal, sniff, whine, whisper, scamper.

Take A Letter

You can start off by making a list of words to describe something only all the words must begin with the same letter.



Perhaps that's how tongue twisters are written. Finally, here are some

Easy Rhymes

Hi	Why	Some	How
Shy	Cry	Fun	Now
Guy	Fly ?	Chum	Cow ?

How many can you make up ?

- * A friend of mine called Bijon,
Went to bed with his trousers on.

Make up your own rhymes about

"A friend of mine called"

Magic with a Matchbox

Last month, some of us were privileged to meet Arvind Gupta, an alumnus of IIT, Kanpur, who is now working with children of lower-income group parents in and around Bhilai. From him we learnt some very interesting facts about the uses to which a common matchbox can be put. I would like to share some of these ideas with readers.

An article like a box of matches, being mass produced, is not only easily available; it is also standardised. Hence it can be used.

- * **As a Measure of length :** Did you know that its length is exactly 2" (5 cm) within a small margin of error. This makes it handy as device for measuring lengths.
- * The area of cross-section of a match is $2\text{mm} \times 2\text{mm}$. Filling a match box tray with matches laid out in neat rows is an exercise in counting and in measuring area.
- * The tray of the match box when painted with oil becomes waterproof and will hold exactly 20 ml. of water. **Another measuring device this time for volume.** From this bottles may be graduated in steps of 20ml., 100ml. leading eventually to the concept of 1 litre.

What else can YOU think of ? Do let us know.

—Gayatri Moorthy

Have Fun with Tangrams

Tangrams are puzzles made with seven geometrical pieces—five triangles (two small, one medium-size and two large), a rhomboid and a square. They are all cut from one large square. The trick is to arrange the pieces to form the silhouettes—people, animals and objects. You can't overlap the pieces, or trim them so they fit, and you must use all seven pieces.

Tangrams came originally from China, but no one knows just how old they are. There are several explanations for the name of the puzzle. Some people think that it comes from the word *t'ang* meaning Chinese. Others say that it comes from *tanka*, the river dwellers with whom Western sailors had dealings in the days when the Chinese government strictly limited all contact with foreigners. There are several other interpretations, none of them proven.

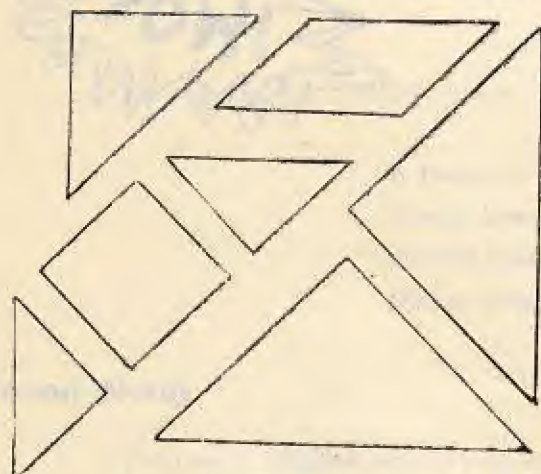
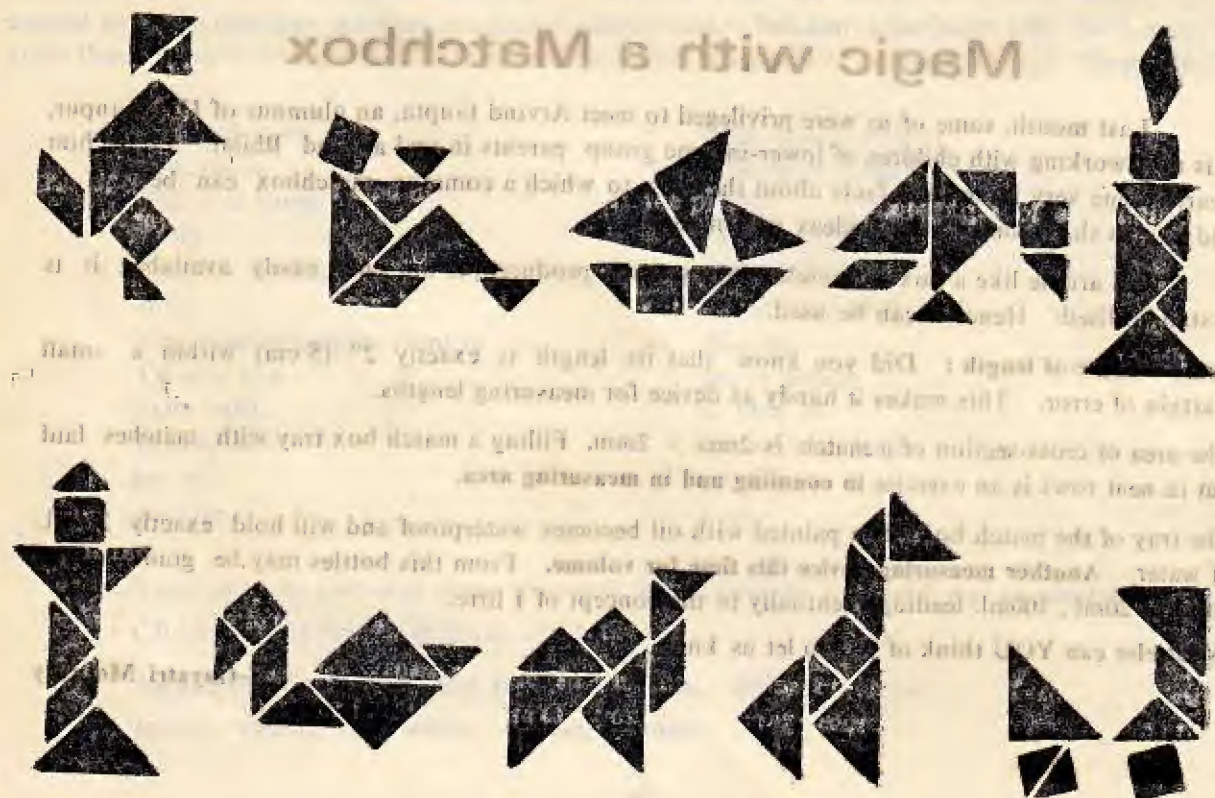


Figure 1 gives you the seven geometrical pieces. Trace them out and transfer them on to stiff cardpaper, so that they can be used repeatedly. As a start you can make the figures shown in the second figure. Later try your own variations. Several books on tangrams are also available in the market. Cut the geometrical shapes out of glazed paper of different colours and mount them on a coloured background, you might even use the figures to tell a story!



Studying Stream-Lined Flow

by Lalit Kishore

Principal, Central School, Tenga Valley, Arunachal Pradesh

Make jet tubes of different radii and connect them to rubber tubings. Take a burette and connect one of the jet tubes to it. Fill the burette with water using a rubber tube connected to a tap. Open the tap to such an extent that the water level in the burette stays constant. This will happen only when the rate of water in-flow from the tap is equal to the water out-flow from the jet. Examine the stream of water coming from the jet. It will have laminar or stream-lined flow upto a certain length, then it will become turbulent. Also find the radius of the jet using a travelling microscope.

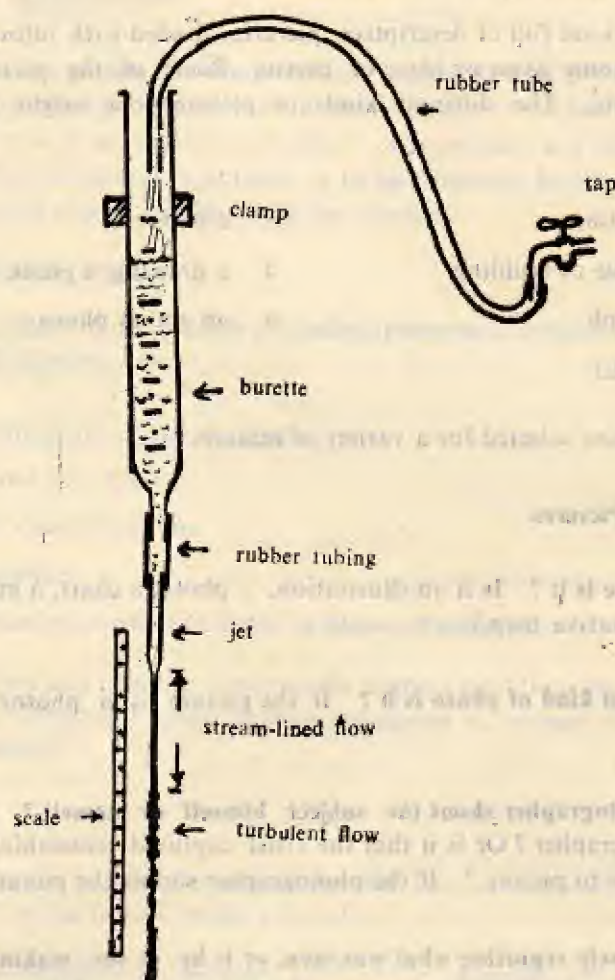


Fig. : Experimental set-up for studying streamlined flow.

Activities :

- Investigate how the length of the stream-lined flow of water changes with the radius of the jet tube.
- Investigate how the length of the stream-lined flow of different liquids changes with the same jet tube.

□

How to Read Pictures

Somebody once said that one picture is worth a thousand words. A beautifully written song would have little meaning if its words were not understood. So too, the person who fails to grasp the artist/photographer's intent misses the meaning of the picture.

Picture language is an important language to know. It will help you and your students to appreciate their textbooks, and will also provide better insight into our highly visual world. It is not a difficult language to learn. Everyone can master it with some practice.

Most textbooks are full of descriptive pictures, loaded with information. Many of them show a point of view on some issue, or idea, or person. Some of the pictures are realistic, others idealistic, a few futuristic. The different kinds of pictures one might find in textbook would include :

1. a photo of a printing
2. a cartoon
3. a photo of a statue or building
4. a drawing, a chart, a map
5. a posed photograph
6. an action photo
7. a photo of a model

The pictures must have been selected for a variety of reasons.

Ask Questions about the Pictures

1. **What kind of picture is it?** Is it an illustration, a photo, a chart, a map, or a combination of these, like an illustrative map?
2. **If it is a photo, what kind of photo is it?** If the picture is a photograph of a painting, for example, then . . .
3. **Why didn't the photographer shoot the subject himself or herself?** Is it because the scene predates the photographer? Or is it that the artist captured something on canvas which the photographer wants to picture? If the photographer shoots the picture himself...
4. **Is he or she objectively reporting what was seen, or is he or she making a personal comment?** Has the photographer photographed the complete scene, or merely one side of it? In other words, do you see both sides of a battlefield, or only the victorious army? If the photographer is making a personal comment . . .
5. **What exactly is the photographer saying in the picture?**

Does he or she catch a political figure in an absurd pose or show one of our large cities smothered in smog or is it the picture of a young boy being decorated for bravery? There are so

many ways a photographer can put across his or her point of view. It is essential for the viewer to see the angle clearly.

6. What has the photographer left out of the picture? Is the viewer seeing enough of the scene, or have certain details been cropped out of the picture? A photograph is only a part of the total scene and the viewer must keep in mind that there may be details left out of the picture which could alter its meaning.

I have taken as an example for this article a picture of a battle between demonstrators and police at Dhaka (India Today, December 31, 1983, p. 126). Try to obtain a copy of the magazine and look at the picture. How might your interpretation of the picture be changed by seeing a bigger picture with many more demonstrators.

7. What is actually in the picture? When a person first looks at a photo, he or she may not see what is there. Too often we give pictures a glance instead of subjecting them to close scrutiny. This is especially true of pictures in textbooks. The pictures and drawings in a textbook must be looked at carefully if all that is in them is to be absorbed by the viewer. But how do we know if we are seeing everything that is in the picture?

The Mental Process of Reading Pictures

Developing mastery in the process of reading pictures is similar to other mental processes, as you will see from the following steps:

- i) Collect Information from the Picture
- ii) Classify and Sort Data
- iii) Formulate Generalizations
- iv) Draw Inferences
- v) Make Predictions—Highest Level of Mental Processes.

Not every picture can take the viewer to the highest level, but the process can be taken as far as the picture allows. Obviously some pictures are deeper in content than others. Try this with the example mentioned earlier.

Collecting Data

This activity can be as sophisticated as the skill level of the students. Start off with the basic skill of listing. Using the picture, make a list of:

The number of people in the picture . . .	approx. 150
The number of animals	nil
Things that grow	a few trees
Type of action	civil disturbance
Type of clothing	uniforms
	civilian clothes
Tools and/or weapons	stones
	teargas shells
	shields

Location.
Buildings etc.

street.
closed shops (shutters down)
wall, gate.

Classifying and Sorting Data

Classification is an ideal method for sorting the information collected. It is not always necessary, but it is a helpful tool. At first the teacher should provide the headings. Classifying is a good way of telling whether or not students are observing details.

Kinds of action

aiming
falling
tossing
fleeing
walking
turning back
running

Kinds of clothing

hats
coats
belts
shirts
pants
dhoties
uniforms
sweater

Kinds of people

officers
policemen
civilians
all men
young/middle aged

Formulating Generalizations

A generalization is a statement of fact based upon the data gathered, classified and sorted. Students should be encouraged to try out this step. Of course, at times the data may be inaccurate, but the practice obtained is useful. Some generalisations about the picture :

- * The civilians and police are very unequal in numbers.
- * The police are better equipped.
- * The civilians are making a brave charge.
- * Both sides are suffering casualties.
- * The civilian forces are losing the battle.

Drawing Inferences

An inference is a probability statement derived from facts, information, observations and insight. It is a higher level of productive thinking than formulating generalisations, because, as you will see, it draws conclusions from all the data.

Drawing inferences about the picture.

- * The policemen will win the battle.
- * When you have superior firepower, there is no need to be afraid that you will lose.

So far, students have been taught and encouraged to draw conclusions from sifted evidence and that is an accomplishment. But in order for a person to climb to the level of prediction, he or she must go beyond the evidence and draw conclusions, from unknowns. In other words, he or she must demonstrate the power to estimate, to guess within reasonable boundaries, and to judge.

Some predictions based on the picture :

- * The police will probably defeat the rioters.

- * Civilians will do everything they can to obtain rifles.
- * Shopkeepers in that area will not open their shops today.

Going through the activities and exercises in the Mental Process of Reading Pictures will help the viewer see more clearly what is actually in a picture. Of course, not every picture in a textbook can be as richly mined, but nonetheless students should be trained to ask questions about the pictures. Most of them have a lot to say.

The Author's Bias.

Almost everybody has a point of view, even objective authors. They take a stand in their textbooks on many issues. Authors and editors have thousands of pictures to select from. Remember, one of the questions to ask yourself is: What has photographer left out of his or her picture?

Pages 85 and 86 of the same issue of India Today have pictures illustrating the life-style of tribal people of an obscure village in Arunachal Pradesh. Following the processes mentioned above towards what kind of conclusions could you lead your students? (Ignore the text of the accompanying article).

Large, distinct pictures obtained from a variety of calendars, newspapers and magazines form a resource which we do not use adequately. They can be mounted on chart paper and stored in box files under suitable headings. A number of interesting advertisements in which old paintings have been reproduced are also often seen in the papers. Teachers of history, civics and geography will find them valuable. They will also raise the lesson above the level of learning and repeating facts found in a textbook. Observation, reasoning and discussion skills will come into operation and get sharpened by frequent use.

Here are a few pictures selected from the history text books used in Classes IX and X, The History of Mankind, Volume I and The Story of Civilization, Volume II. You might find it interesting to analyse these pictures with your students. First try to prepare a list of relevant questions you could ask the students.

Vol I : The History of Mankind

- i. p. 31 A general View of Houses and a Lane, Kalibangan
- ii. p. 43 The Great Temple of Abu Simbel
- iii. p. 97 Chaitya at Karli; Compare this with
p. 148 The Arcaded Hall of the Mosque at Cordova
- iv. p. 215 The Destruction of Tea at Boston Harbour

Vol. II : The Story of Civilization

- i. p. 290 Soviet troops enter Berlin
- ii. p. 292 Survivors from a German Concentration Camp
- iii. p. 314 African students of Soweto

Dictation For Grown - UPS

Dictate the following sentence to a colleague, From 100, subtract 10 marks for each misspelt word :

Outside a cemetery sat a harassed cobbler and an embarrassed oculist picnicking on a desiccated apple, and gazing at the symmetry of a lady's ankle with unparalleled ecstasy.

Have You Heard About . . . ?

***CASSELL'S NUMBER GAMES** designed by Peter Avis. At the word Book Fair, I recently bought set 2 for our Teachers' Centre. There are four sets in all. Each set contains five games and costs a little over Rs. 100/=. The games have interesting titles like Going to the Zoo, Dinosaurs, Ski Run, Superstar and Space War. Each one is built around a small story and involves children in practising computational skills ($+$, $-$, \times and \div). The level of difficulty increases with each set and leads children up to the handling of large numbers, decimals and calculators. The series is aimed at children in the age group of 8-14 years. Each set is accompanied by a small pamphlet which sets out, in detail, the educational objectives of each game in the set. Teachers will find the games useful as a 'fun' method for giving their students practice as well as for keeping them occupied when classwork is finished early.

Contact L. B. Publishers & Distributors Pvt. Ltd., 104/105 Bajaj House, 97 Nehru Place, New Delhi - 110019.

I'm sorry I do not have the addresses of their offices at Bangalore, Calcutta, Madras and Bombay.

*** MONSOON - A Simulation Game**, devised by John Staley

The game focusses on some of the dynamics of poverty in an imaginary village near Mysore. Players take the roles of farmers in the village, their families and other people in the village. They experience some of the forces that shape people's lives in the village—dependence on the monsoon, cooperation and leadership within the village, the relevance of development programmes, the effects of irrigation and malnutrition, rich-poor relationships, the roles of the money-lender, the development worker and so on.

The game is suitable for adults and older children and can involve between 20 to 45 people. It takes (according to the introduction) about 3 hours to play, including the post-game discussions. Detailed instructions on how to play the game are given in the booklet.

Available from : SEARCH, 256, off 7th Cross, First Block, Jayanagar, Bangalore 560011

***DELHI-The City I Live In (A Social Studies Book for Class III)**

Produced by Mrs. Geeta Mathur, Ramjas Teachers' Centre,

Mrs. Sunita Kapoor and Mrs. Meera Joshi.

Published by Frank Brothers. Price. Rs. 7.50p

The book is "intended to arouse in the child an interest in his surroundings" and to "bridge the gap between the elementary social studies work done in Class II and the demanding one of Class III". Printed in two colours, with well-done illustrations, students of schools in Delhi will find that the book deals with essential services, physical features and environment. A novel idea is the introduction of a multi-colour comic-style text titled The People of Delhi. Workbook-style questions and activities are incorporated in each chapter, in order to make learning more meaningful and pleasant. Suggestions for teachers are also included at the end of the book. The authors suggest that this work should be done in the first term of class III before taking students on to materials based on other states.

*KNOW YOUR ENGLISH

Blue Level, Red Level and Yellow Level—Books A and B at each level. Published by B.I. Publications. Each book priced at Rs. 5/=.

Teachers of English Language will find many useful multiple choice questions in this series. They provide students with practice in the use of certain structures as well as in conversation. Some questions are based on pictures—a novel idea which should be brought into the classroom.

*A DICTIONARY OF CHEMISTRY

*A DICTIONARY OF PHYSICS

*A DICTIONARY OF BIOLOGY

*A DICTIONARY OF MATHEMATICS

Published by Arnold-Heinemann at a special Indian price of Rs. 20/—

Containing concise definitions of most of the important words used at school level, these books should prove useful to teachers and students alike. Definitions of processes are accompanied by examples. The information given is also divided, where necessary, into a lower and a higher level to suit the need of the user.

THE GINN MATHEMATICS SERIES

THE FULL SET CONTAINS

- * 7 teachers Resource books
- * 3 Big books for levels 1, 2, 3 consisting of display charts and a plastic overlay sheet on which teachers can write or draw and then erase their writing.
- * Core Pupils' Materials consisting of
 - 3 workbooks each at levels 1 & 2
 - 2 workbooks + 1 textbook at level 3
 - 2 textbooks each for levels 4, 5, 6, 7
- * Supplementary Pupils' materials to re-inforce concepts
- * Duplicating master to make Assessment Sheets and Class record sheets for each level.

The Teacher's Resource books cost around Rs 80/= each and give a complete breakdown of the syllabus content. The objectives are stated in behavioural terms at each level. There are detailed instructions on how to use the material for classroom teaching, follow-up and re-inforcement, enrichment and assessment. The pages of the pupils' books are reproduced in the Teacher's Resource books for ready reference. A glossary of technical vocabulary and a list of materials needed are useful appendices. The set as a whole is very expensive, but is a wonderful buy if your budget can be stretched. The Teacher's resource books can be bought alone and will provide useful guidelines and ideas for classroom work, for additional exercises and for testing. The series covers mathematics learning between the ages of 5—12 years. Available at the Oxford University Press, Delhi.

A Visit to the National Museum of Natural History, New Delhi

by Arti Laroia

Class IX students have a unit on the Origin of Life, Evolution, and Adaptation as part of their curriculum. Last term I took my class to the Museum of Natural History in an attempt to provide them with some meaningful exercises on the subject. Each of them was given a questionnaire to answer. The children were given the freedom to discuss these questions among themselves. As an added incentive the questionnaire was to be marked and this assessment included in their grading. There was a lot of excitement and enthusiasm. The students paid extra attention to the exhibits and the commentary that goes along with them.

I give here the questionnaire prepared by me for the occasion.

Fill in the blanks :—

1. Our planet the earth is a part of the.....system.
2. The sun was formed by the transformation of
3. Planets like Saturn, Jupiter, Mars, Venus and Earth were formed byrevolving around the sun.
4. The..... theory was proposed for the Origin of life.
5. During the cooling process the surface layers settled as.....of the earth.
6. The further cooling process continued because of and of water vapours.

Tick the correct answer :—

- | | |
|---|--|
| 7. The earth came into existence | 8. Initially the entire solar system was |
| a) 4.5 billion years ago | a) a huge ball of gases |
| b) 4 billion years ago | b) a huge ball of salts |
| c) 4 million years ago. | c) a huge ball of water. |
| 9. Atoms settled into the centre of the gaseous ball because of | 10. The first forms of life were |
| a) the weight exerted by the atoms | a) artificial chains of amino acids |
| b) the gravitational pull of the gaseous ball. | b) molecules |
| c) the force exerted by a foreign element. | c) microscopic organisms |
| | d) all of the above. |

Answer the following in your books.

1. What is evolution ?
2. What was the theory proposed for the origin of new forms ?
3. What are fossils ?
4. How are fossils formed ?
5. List the important evidences in favour of evolution with an example of each.
6. Name some of the vestigial organs observed during the study of evolution ?
7. How has the Technological man affected earth's resources ? Give reasons to support your answer. What preventive measures would you desire to adopt to maintain the quality of life ?

Leisurely Learning

Learning in science should not be hurried. Children need time to mull ideas, discuss them with classmates, make observations, find additional examples, weigh evidence, think of alternative explanations, and test ideas in situations that seem applicable.

There seems to be increasing competition among schools and among children to cover a prescribed amount of subject matter in the elementary grades. Since elementary school pupils have at least six years of schooling ahead of them, including six years of science, learning in science in the first six grades should be leisurely.

Pupils should have time to think about what they themselves do, not merely what they see others do. They also need time for doing things in groups where they must think critically and communicate with each other. They need time to practise and to master skills such as measuring, recording and communicating, and to develop attitudes and appreciation as well. You, the teacher, must allow pupils time to brainstorm and to be creative, time to test their ideas in new situations, and time simply to enjoy science.

It may be frustrating to let a pupil flounder a bit in his search for knowledge and understanding, especially if you know or think you know the answer. Yet, as in a treasure hunt, much of the fun of learning lies in the search, not in the answer.

Just as a treasure hunt would be spoiled by giving away the secret, a child's imperfect attempt to find something out for himself may be spoiled by telling answers too quickly. When you are tempted to tell, remember that it is the process of science, not the answer, that is most important. Telling saves time, if you are more eager to save time than to open minds, but it is far better to let pupils explore thoroughly and learn leisurely. Then learning will be more lasting and science more enjoyable.

Victor E. Schmidt & Verne N. Rockcastle
in Teaching Science with Everyday Things

contd. from page 14

—This questionnaire did not include any illustrations for the students to recognize or any questions on adaptations. The Division of Educational Services of the Museum has prepared a series of four worksheets with illustrations on adaptation, classification and eco-systems. This series can be obtained free by the teachers from The Planning Officer of the Museum and can be used with students.

Usually the learning outcome of an educational visit like this is not substantial. The children often walk past the exhibits with an expression of boredom and are indifferent to the accompanying commentary. A little bit of planning beforehand made the excursion worthwhile and meaningful for the students. The children's curiosity was aroused when they saw the exhibits of vestigial organs and the fossil. Their response specially relating to the last question was keen and enthusiastic. □

GROWING UP

When a child grows, he grows all over. *Do woody plants grow in the same manner?* Here are some interesting activities and observations that will lead children to the answer and perhaps change some opinions as well.

Ask your class :

Do tree limbs like children's arms, get lifted higher as the tree grows?

Record their opinions. Then set up a number of small groups to conduct the following investigations. They could interview people and also make direct observations/investigations. Here are the questions to which they must seek answers :

i. Do swings hanging from the limbs of trees need to be lengthened from time to time as the tree grows?

ii. Look for fences whose wires are nailed to tree trunks. Find out if the level of these wires changed as the tree grew. Were the wires ever lowered?

iii. Examine creepers growing on buildings. See if they move their stems as they grow. Do they re-fasten them to higher places. Mark these levels on the wall and observe if the marks change at intervals of 1 week, 1 month; or in different seasons.

iv. Stick two common pins, firmly, one above the other into the trunk of a young tree. Measure the distance between the pins. Observe changes in the distance between the pins during the growing season. What about their distance from the ground?

v. Similarly make a number of equidistant ink marks about 2 cm apart on the stem of a seedling. Use indelible ink so that it will not be washed off. Observe closely and measure how the ink marks move apart.

If the trunk of a tree corresponds to the legs and torso of a child what parts would correspond to the arms and fingers? Devise experiments to measure changes in the length and thickness of "arms" and fingers" of the tree. Also find out if the "torso" of the tree changes in size.

Finally let all the groups report their findings. Pictorial records and actual measurements may be put up on bulletin boards and discussed.

What parts of woody plants grow faster? Do woody plants really grow as people do? ☐

Your Attention Please

PATHWAYS is issued four times a year—in February, April, August and November. The annual subscription is Rs. 8/-, only. Please send this in as a Money Order or Cheque (add outstation charges please) to the Educational Planning Group, 4, Raj Niwas Marg, Delhi-110054. This entitles you to all the 4 issues of that calendar year. **Remember to include your complete and correct postal address, including the PIN Code.** Back numbers can be obtained for Rs. 2.50 each. (including postage).